

# Air Force DoD IIS Infrastructure



497th  
Intelligence Group



# *Overview*



- Where we are today
- The problem
- The solution
  - Phase one
    - Phase one cost
    - Phase one schedule
  - Phase two
    - Phase two costs
    - Phase two schedule
- Summary



# *Where we are today*



- Client Server Environment
  - Provides the security and infrastructure services required by the DoDIIS community
  - Evolved since 1993 into a mature, stable collection of services
  - Installed at all Unified Commands
  - Propagated outside the DoDIIS community
    - NASA
    - TBMCS
    - Air Force Global Weather
    - FAA and NIMA are evaluating

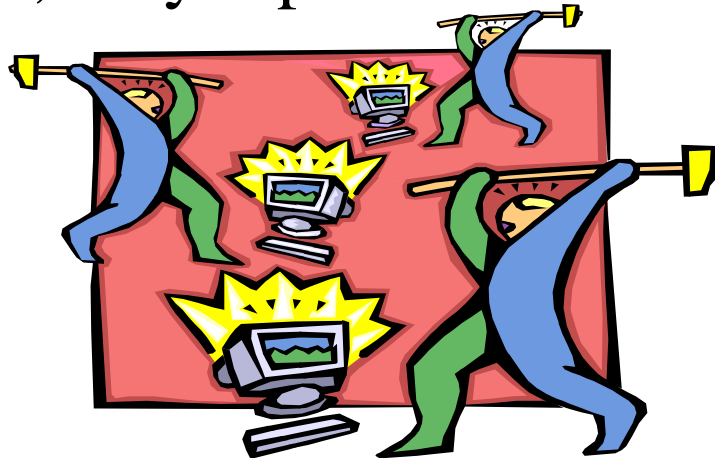




# *The Problem*



- CSE is in maintenance mode (legacy)
  - Problem Report fixes only
    - Stagnant Infrastructure
    - No funded program for implementing new user requirements
- No evolutionary path from CSE to DII COE
  - No transition, only replacement







# *The Problem (continued)*



- DII COE has no SCI certification
  - Numerous security findings at 2 separate DII COE assessments
  - Removal of basic C2 security functionality in DII COE V4.0.1.1
- DoDIIS Instructions dates are unrealistic
  - “*Full DII COE implementation by FY01*”
    - No funding for DII COE in FY00
      - DoDIIS DII COE was supposed to go through SCI certification and JITF in June FY99
        - » Stop Work on integration in Feb FY99 due to no funding by DIA

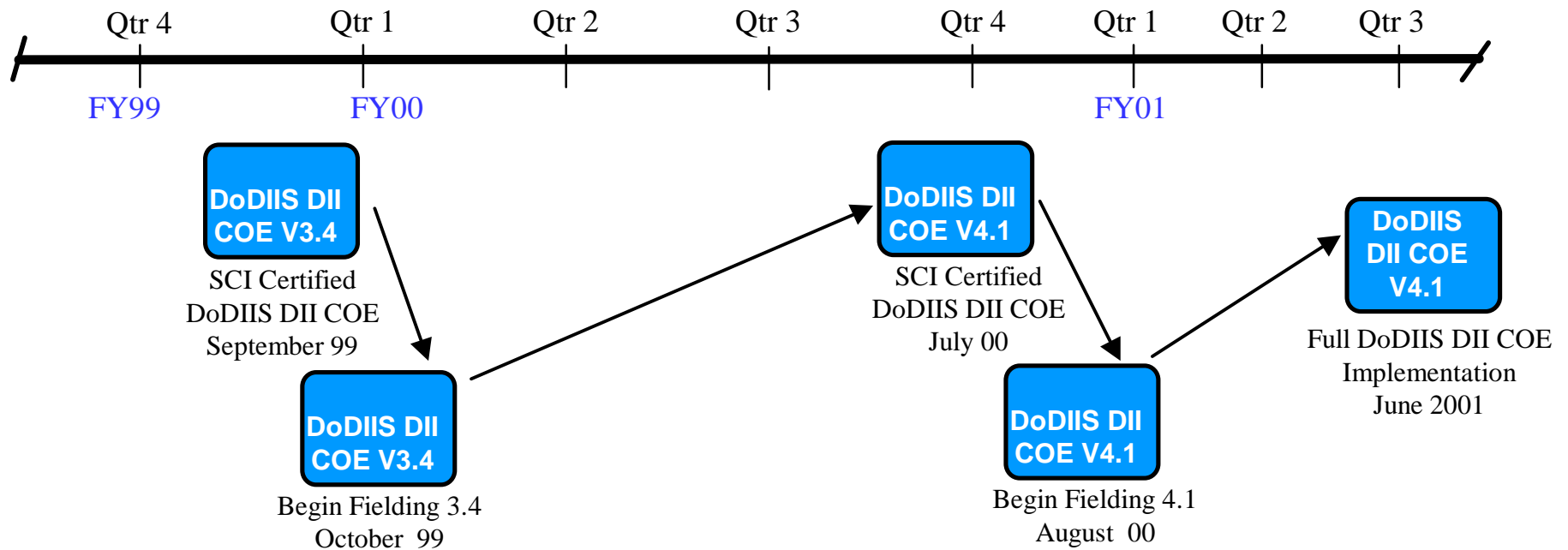




# *The Problem (continued)*



- The schedule as of February 1999

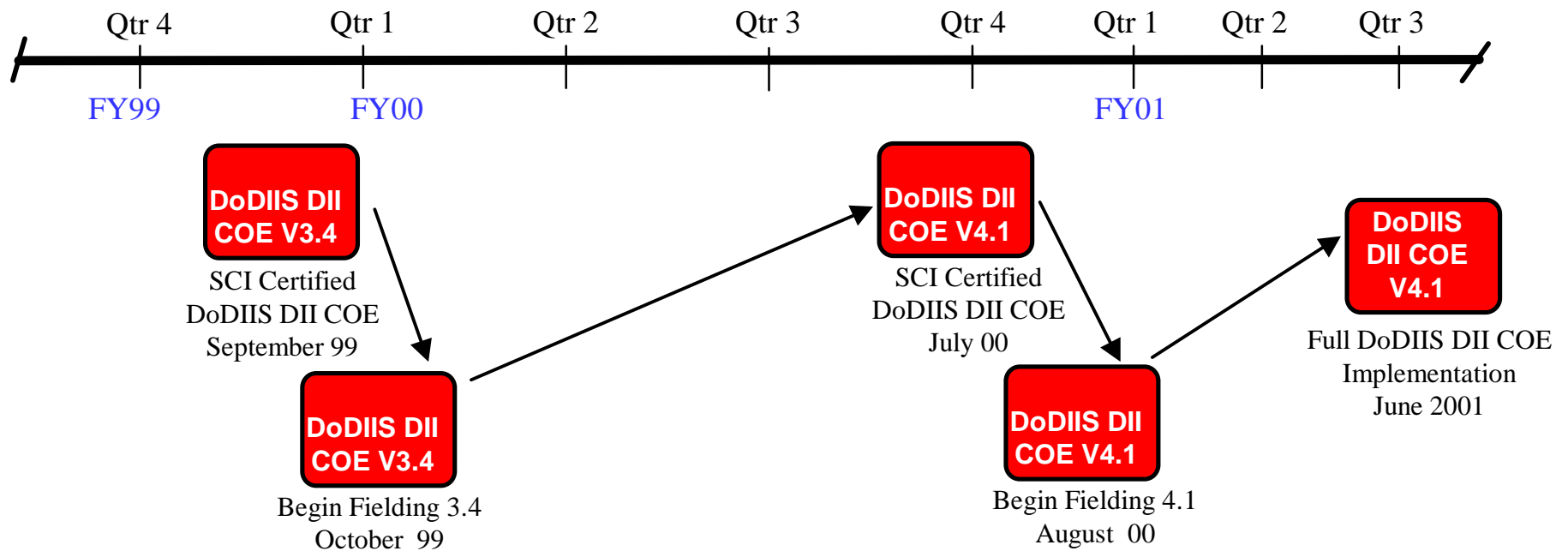




# *The Problem (continued)*



- The schedule as of June 1999



 = Slip in the schedule





# *Solution*



- An evolutionary migration approach from the current DoDIIS infrastructure to the future AF DoDIIS DII COE
  - A Phased implementation to a COTS infrastructure while meeting current user requirements for newer advanced technologies
    - AF DoDIIS cannot continue to maintain a stagnant infrastructure





# *Phase One*



- Flexible evolutionary migration
  - Segmentation of current DoDIIS infrastructure services with upgrades to newer technologies
    - Provides backward compatibility with the current infrastructure and allow interoperability and compatibility with current collateral segments
      - Least intrusive to site resources
  - Most cost effective way to achieve DII COE level 5 compliance
  - Provides the security necessary to meet AF DoDIIS requirements
  - Integration with emerging technologies to satisfy current unsatisfied user community requirements



# *Phase One (continued)*



- Automate the segmentation process
  - Segmentation tool
    - Places segmentation in the hands of the integrator vs the IMA developer
    - Segment creation and maintenance
    - Configuration Definition Modeling
    - Allows sites to segment site-unique applications without the cost of a development staff

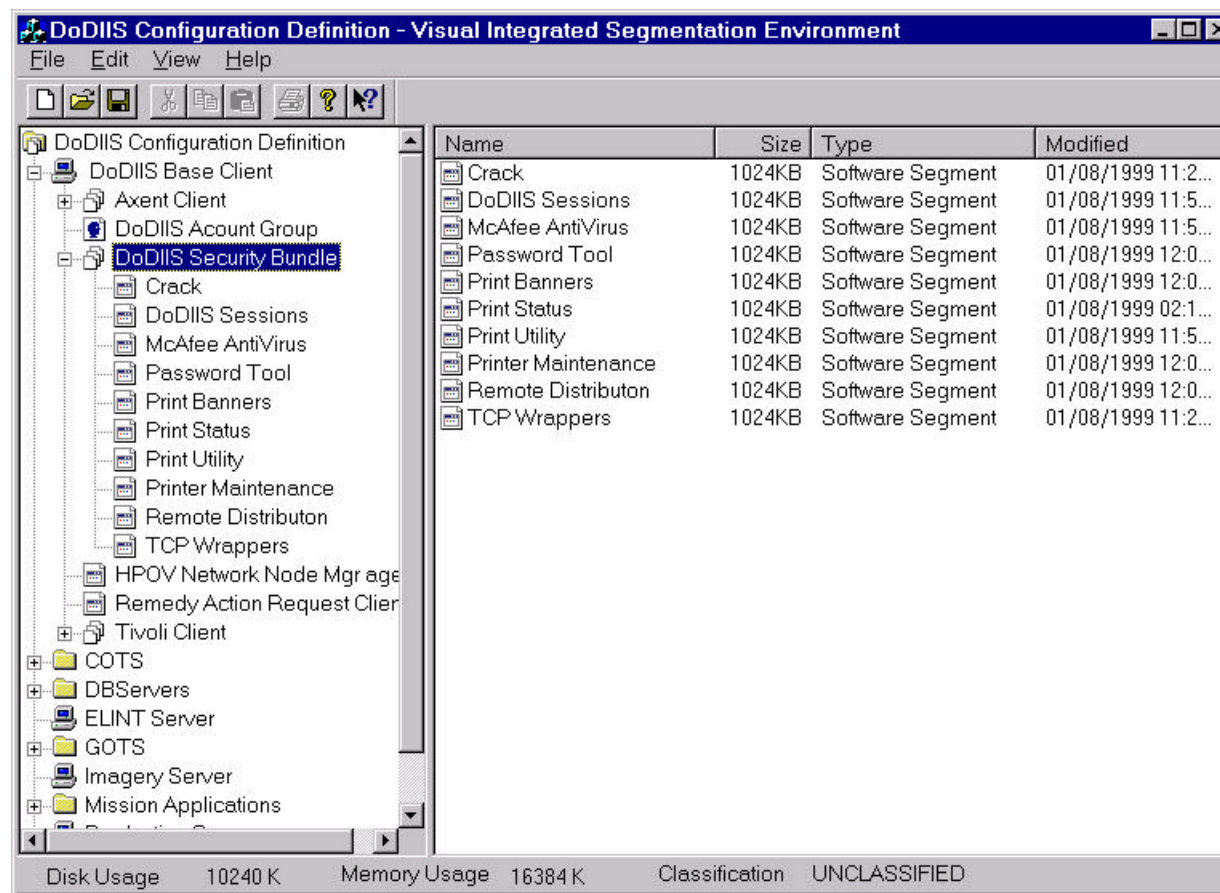




# *Phase One (continued)*



- Point and Click/Drag and Drop Segmentation
- Configuration Definition Modeling





# *Phase One Costs*



- Total cost
  - Cost includes
    - Integration of current infrastructure services with DII COE
    - Transition utilities to preserve current naming service and system data
    - NT security utilities (SECUTL Segment)
    - Segmentation tool
    - Test support (IPAT, Beta, Beta II, certification documentation)



# Phase One Schedule



Activity	1999							2000						
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
<input type="checkbox"/> <b>DoDIIS DII COE</b>	7/1	▼						12/31						
SECUTL	7/1	△			△	10/1								
Infrastructure Segment	7/1	△			△	10/1								
Transition Utility	7/1	△			△	10/1								
Documentation	7/1	△			△	10/1								
Test Plan	7/1	△			△	10/1								
<input type="checkbox"/> <b>Testing</b>				10/4	▼			12/31						
Site Transition Plan				10/4	△	△	10/29							
IPAT					11/1	△	11/5							
Prep for Beta I					11/8	△	△	11/26						
Beta I						11/29	△	12/3						
Prep Beta II						12/6	△	12/10						
Beta II						12/13	△	12/17						
Prep for Final Delivery						12/20	△	△	12/30					
Final Delivery						12/31	△	12/31						
Transit Tool	7/1	△					△	12/31						





## *Phase Two*



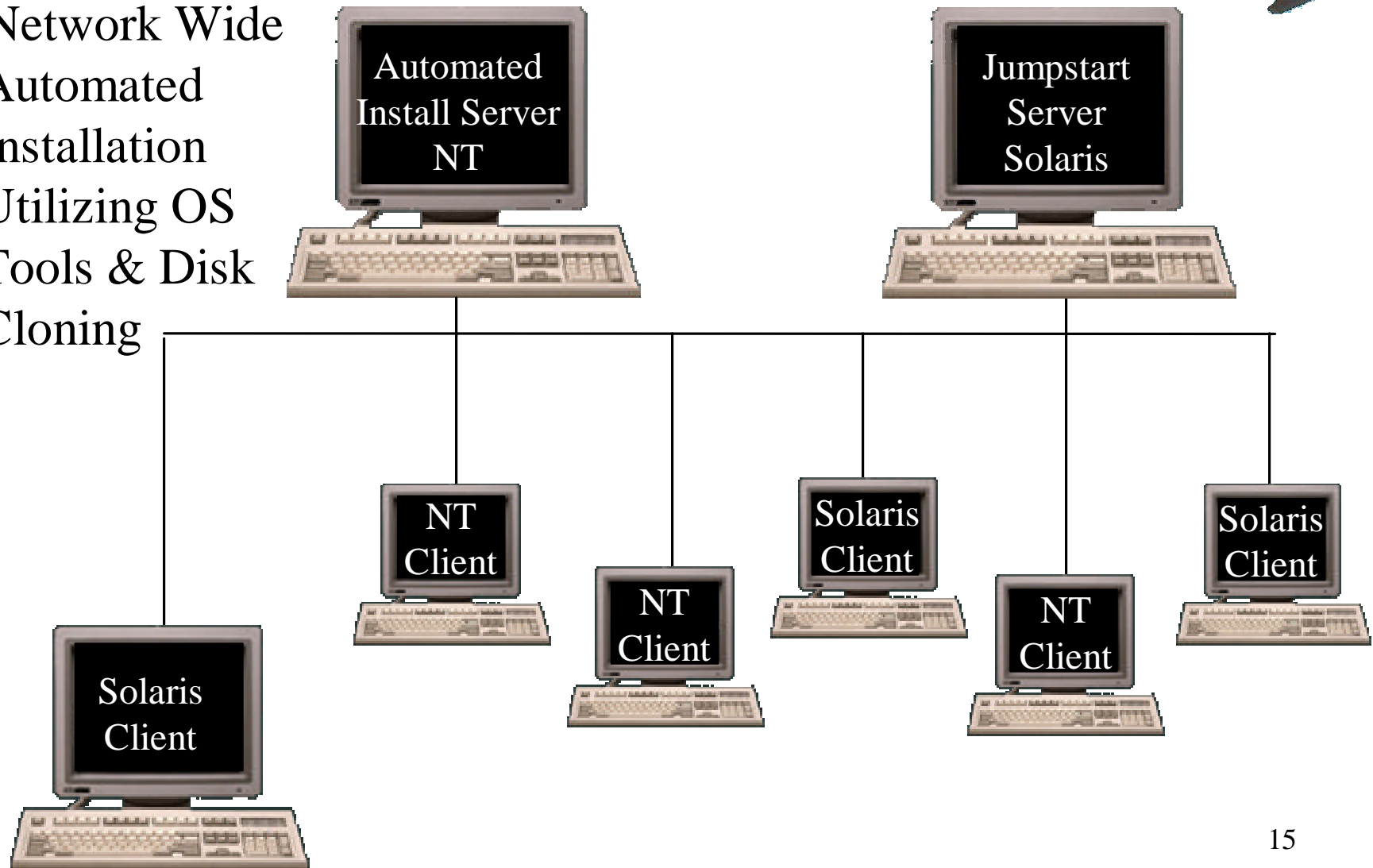
- Migrate away from DoDIIS GOTS infrastructure services as COTS and funding become available
  - Gradual migration spreads funding for COTS across fiscal years
    - As COTS become available GOTS services are removed
  - Automate the installation and configuration of the AF DoDIIS DII COE
    - Non-interactive installation of entire AF DoDIIS DII COE architecture
      - OS, DII COE Kernel, DoDIIS COTS/GOTS products



## *Phase Two (continued)*



- Network Wide Automated Installation Utilizing OS Tools & Disk Cloning

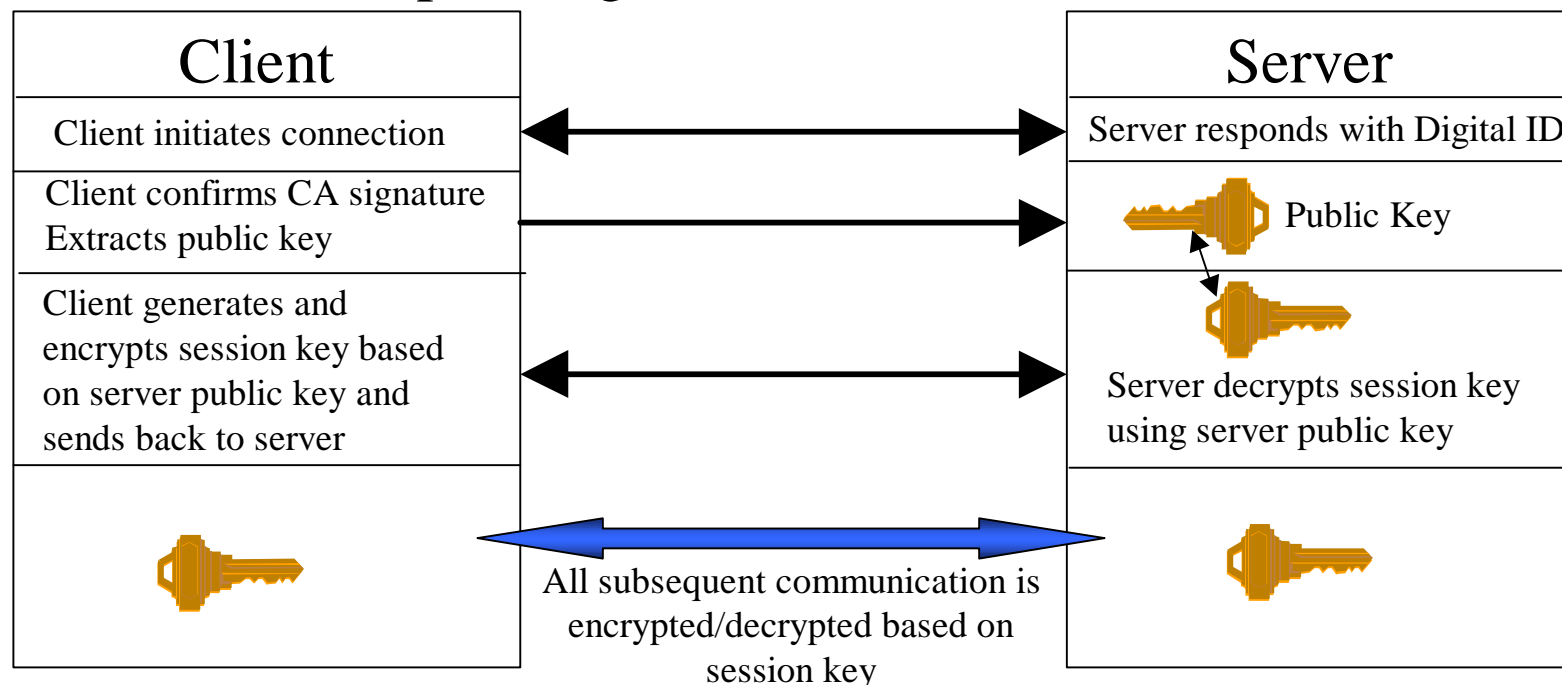




## *Phase Two (continued)*



- Continue implementing new infrastructure technologies
  - Public Key Infrastructure (PKI)
    - Incorporating SSL, IPSec Protocols and CA servers

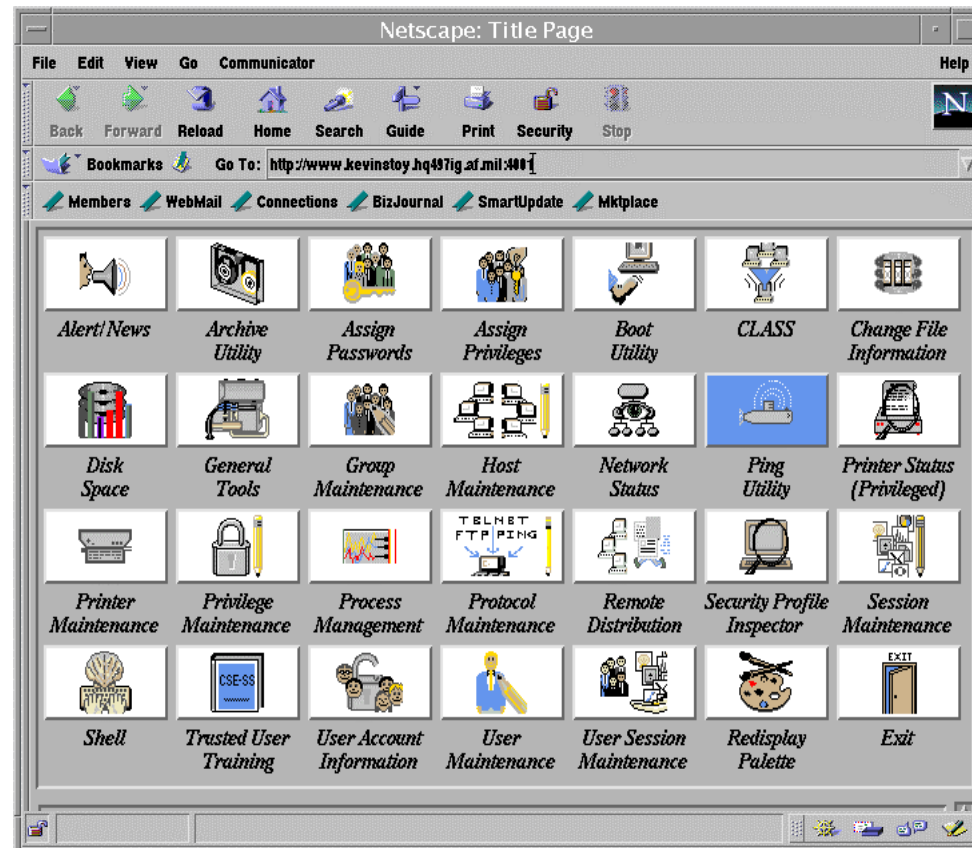






## *Phase Two (continued)*

- Continue implementing new infrastructure technologies
  - Web interface for infrastructure services





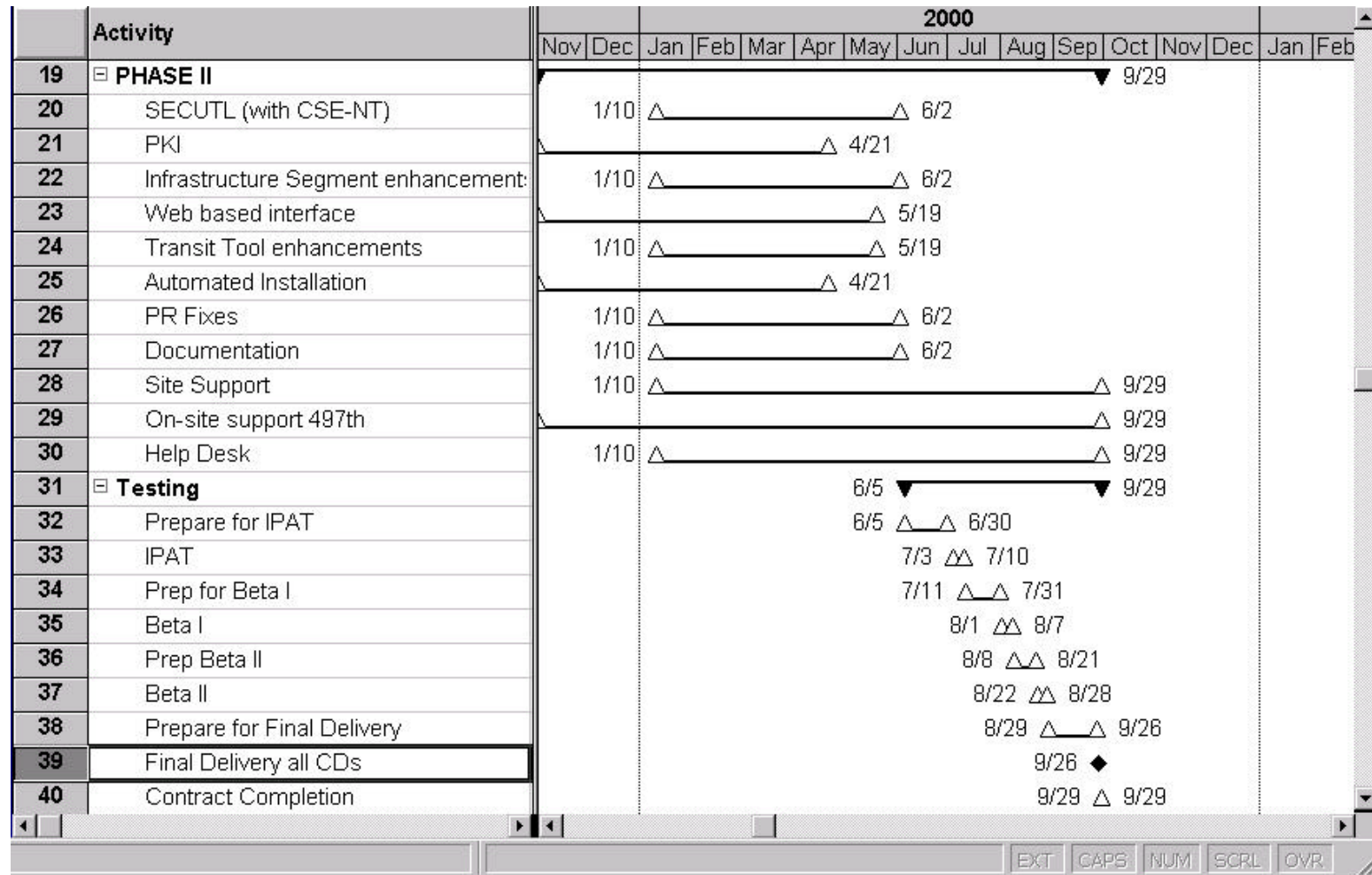
# *Phase Two Costs*



- Total cost
  - Cost includes
    - Segment enhancements
    - Automated installation
    - Web based interface
    - Public Key Infrastructure integration
    - Documentation updates
    - Segment testing



# Phase Two Schedule





# *Summary*

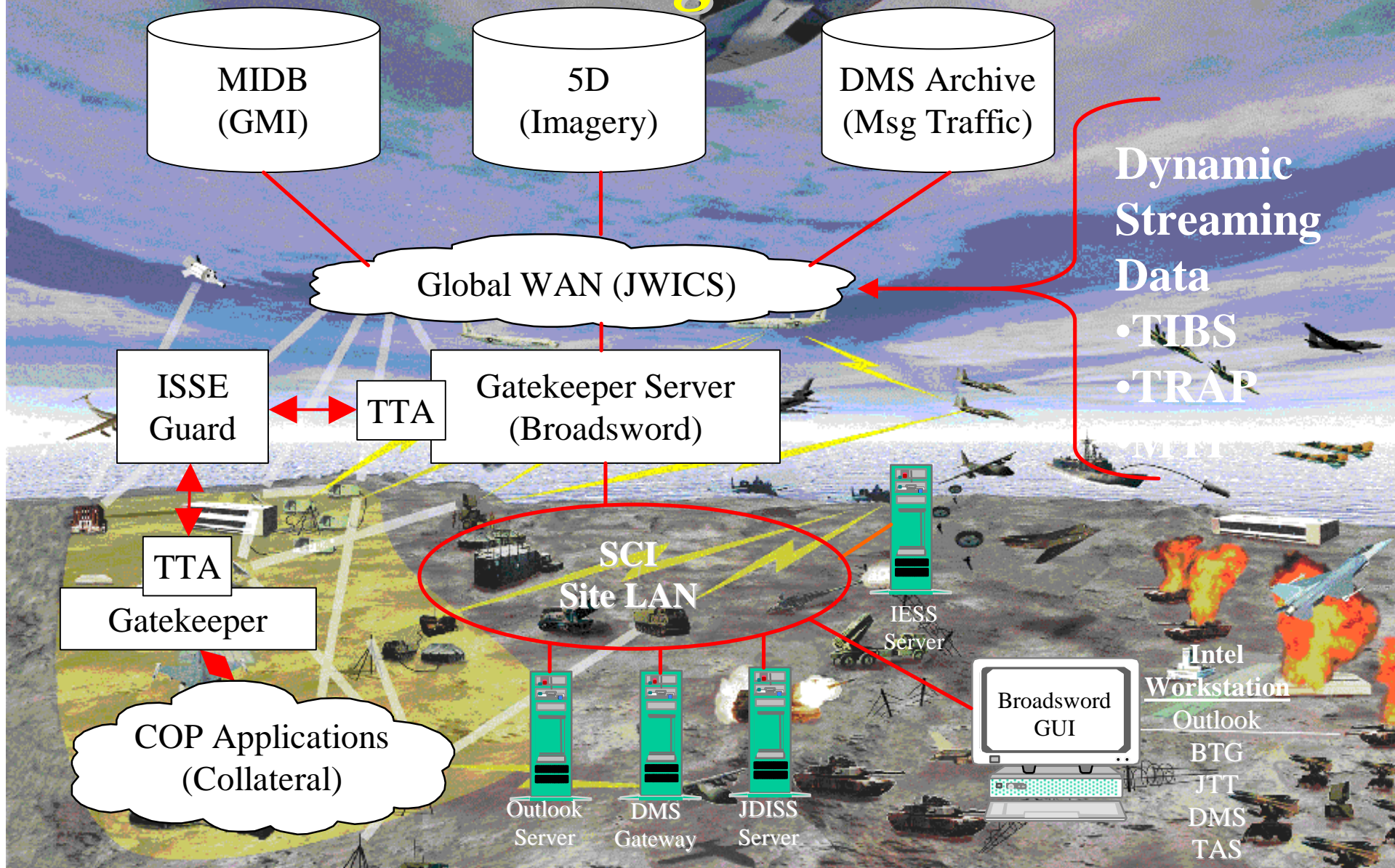


- The DoDIIS infrastructure must evolve and migrate to DII COE
- A phased approach is the most cost effective migration path to DII COE
- Operational requirements must not be sacrificed during the migration
- Automation and new technologies are required to migrate the current infrastructure to the DoDIIS DII COE



# Summary (continued)

## “The Big Picture”







# *Issues*



- IMA migration schedules
- Phase two COTS funding



# *Questions?*





# *Backup*



- Target Platforms
  - DII COE V4.1 on Solaris 7, NT 4.0
- NT Infrastructure services to include
  - CENTCOM SECUTL segment
  - NT SVCP 5
- Solaris Infrastructure services and transition utilities to include:

Alert News, Archive Utility, Assign Passwords,  
Assign Privileges, Boot Utility, CLASS,  
Change file information, Disk Cloning, Host Protocols,



# *Backup (continued)*



- Solaris Infrastructure services and transition utilities to include:

Network Status, Ping Utility, Printer status, Printer Maintenance, Privilege Maintenance, Process Management, RPC client/server, Remote Distribution, Session Maintenance, Xautolock (deadman), XDM\_Xdcons, User Account Information, User Maintenance, User\_Group Maintenance, User Session Maintenance, Jumpstart support, Installation Wizard, Transition tool for preserving current infrastructure data



# *Backup (continued)*



- Phase two COTS
  - Tivoli
    - TME 10 Framework
    - TME 10 Distributed Monitor
    - TME 10 User Administration
    - TME 10 Security Manager
    - TME 10 Enterprise Console
  - Axent
    - Intruder Alert (ITA)
    - Enterprise Security Manager (ESM)



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